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ABSTRACT

Developed by the Iowa Department of Education, North Iowa Area Community College, and Hawkeye Community College (Iowa), this booklet presents the tech prep model for articulation efforts among all educational entities, business, industry, labor, and communities in Iowa. Following a list of committee members working on the model and graphs of the model's components, the mission of Iowa's Tech Prep program is presented. Descriptions are then provided of the following components of the tech prep model: collaboration; school-to-work transition; articulation; life-long learning and providing students with adaptive skills; integration of technical and academic curricula; increased educational and career options; business, industry, and labor involvement; worksite-based learning; life and job skills; applied and contextual learning; technical and academic competence; staff development; career education, cultural diversity, and gender equity; special populations and preparatory services; commitment from all organizational levels; marketing; the autonomy of different areas of the state; the development of a common vocabulary; and evaluation methods. For each component, information is provided on the issue that the component addresses and on recommended patterns of evidence for site-based program design, implementation, and evaluation. Finally, recommendations and strategies for resolution are presented for the following issues affecting the implementation of tech prep: limited financial resources, the need to accept credit for applied course work, licensure and certification requirements that do not allow for the optimum use of qualified faculty, the need for statewide leadership, and the need to develop the national tech prep technical core curriculum. (AJL)

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Iowa's Tech Prep Model

A Partnership for Tech Prep

Issues / Model Components / "Patterns of Evidence"

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Iowa's Tech Prep Model

"Iowa's Tech Prep Model Framework" for implementation between all educational entities, business, industry, labor and Iowa communities is funded through the Iowa Department of Education, Division of Community Colleges, Bureau of Technical and Vocational Education, as part of a $250,000 competitive grant of the Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 (P.L. 101-392).

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Revised 1995

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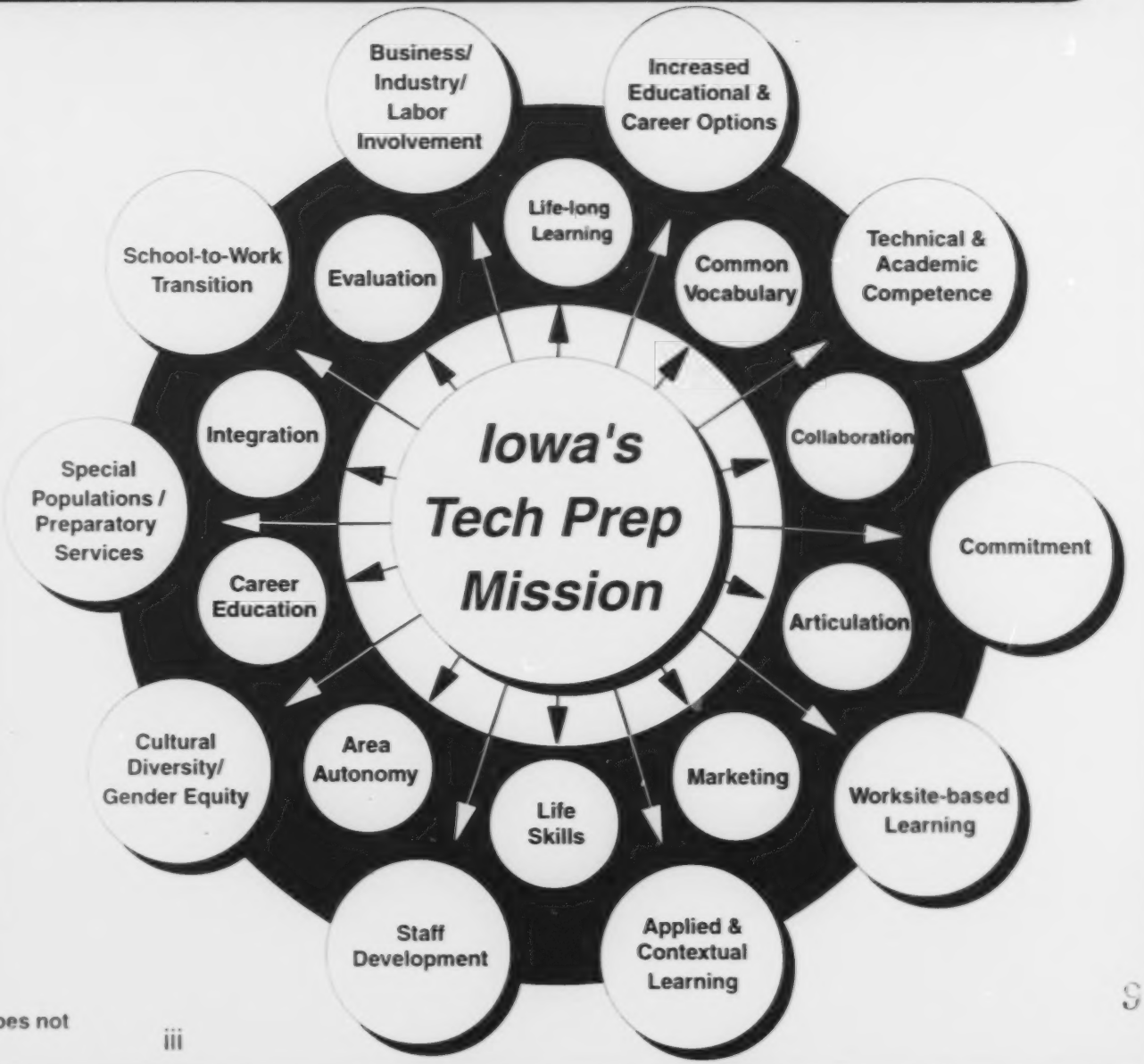
"Iowa's Tech Prep Model Framework" was amended in February of 1995 to make it parallel with the School-to-Work Opportunities Act of 1994.

Iowa's Tech Prep Model Components

Model Component Page Numbers

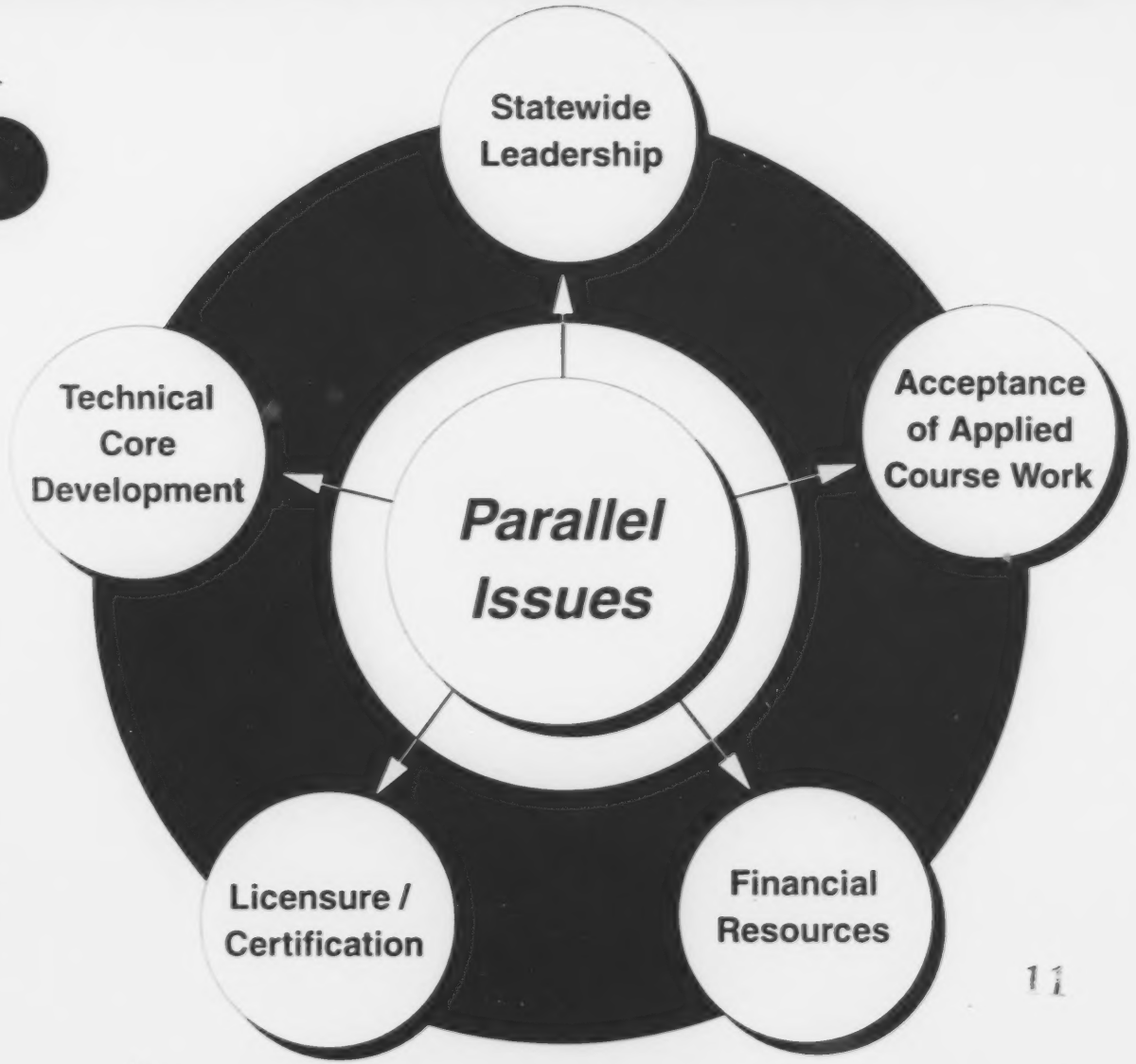
Collaboration.....1
School-to-Work Transition..2
Articulation.....3
Life-long Learning.....4
Integration.....6
Increased Educational & Career Options.....7
Business/Industry/Labor Involvement.....8
Worksite-based Learning....9
Life Skills.....10
Applied & Contextual Learning.....12
Technical & Academic Competence.....13
Staff Development.....14
Career Education.....15
Cultural Diversity/ Gender Equity.....16
Special Populations.....17
Commitment.....18
Marketing.....19
Area Autonomy.....20
Common Vocabulary.....21
Evaluation.....22
Parallel Issues.....24



Note: Size and location of component does not depict priority or importance.

Iowa's Tech Prep Model Components

Parallel Issues



Parallel Issue Page Numbers

Financial Resources.....26
Acceptance of Applied Course Work.....27
Licensure / Certification..29
Statewide Leadership.....30
Technical Core Development.....31

Note: Location of component does not depict priority or importance.

The mission of Iowa's Tech Prep programs is to mobilize community and statewide resources to:

- Develop a highly skilled and competitive workforce
- Improve academic and technical competence for all students
- Improve career readiness and career decision-making
- Develop students' foundation and adaptive skills for life-long learning and for success on the job and in life
- Increase the number of skilled graduates to be responsive to Iowa's business and industry needs
- Ensure successful transition from secondary to postsecondary education and/or work
- Increase access to quality programs for diverse and special populations

A Partnership for Tech Prep

NORTH IOWA AREA COMMUNITY COLLEGE

HAWKEYE COMMUNITY COLLEGE

Mission of Iowa's Tech Prep Program v

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: Collaboration among all educational entities, business, labor, and the community could be improved.	► Iowa's Tech Prep programs will be characterized by high levels of collaboration among all educational and employment and training entities, business, labor and the community.	► Articulation agreements between LEAs, community colleges, regents' institutions and other postsecondary institutions ► Postsecondary Enrollment Options Act (281-22 Iowa Administrative Code) ► Regional Tech Prep advisory boards ► Local task forces* ► Regional resource centers ► Jointly administered programs ► Regional planning board coordination ► Worksite-based learning programs ► Utilize the expertise of existing Tech Prep programs

*Hull, D. & Parnell, D. (1991). *Tech prep associate degree: A win/win experience*. Waco, Texas: Center for Occupational Research and Development. (pg. 50)

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: The transition from secondary school to postsecondary education and/or work could be improved.	► Iowa's Tech Prep programs will be characterized by graduates who successfully make the transition from secondary to postsecondary education and/or work.	► High levels of employer satisfaction ► High levels of student satisfaction ► Worksite-based learning opportunities ► Tech Prep enrollments and completion rates ► Articulation rates ► Students with academic and technical readiness for entry into and success in a postsecondary program and/or occupation

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► "For years, American society has perpetuated an educational system in which academic education and occupational learning have been kept separate, suggesting that the two have very different applications."	► Iowa's Tech Prep programs will be characterized by integrating the three components of an integrated school-to-work delivery system: 1. School-Based Learning 2. Connecting Activities 3. Work-Based Learning	► See "Patterns of Evidence" for each of the three components on the next pages.

Source: School-to-Work Opportunities Act of 1994. P.L. 103-239, May 4, 1994; and AVA Guide to the School-to-Work Opportunities Act, 1994.

Iowa's Tech Prep Model

Components of School-to-Work Transition

School-Based Learning Component

- Career preparation
- Selection of a career pathway
- Higher performance levels
- Integration of academic and vocational education
- Evaluation
- Secondary/postsecondary articulation
- Implement workplace readiness skills
- Integrate career development into curriculum

Connecting Activities Component

- Bring students and employers together
- Establish liaisons between education and work
- Technical assistance to schools, students and employers
- Assistance to integrate classroom learning with worksite learning
- Encourage participation of employers
- Job placement, continuing education or further education
- Post program participant follow-up and analysis
- Linkages with youth development programs and industry

Work-Based Learning Component

- Integration of classroom and worksite learning
- Work experience (Paid and Non-Paid)
- Job Training/Job shadowing
- Workplace mentoring
- Instruction in workplace readiness competencies
- Instruction in all aspects of an industry

A Partnership for Tech Prep

NORTH IOWA AREA COMMUNITY COLLEGE

HAWKEYE COMMUNITY COLLEGE

School-to-Work Transition

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► School-to-Work Sub-Component #1: School-Based Learning	► Iowa's Tech Prep programs will provide students with opportunities for career planning and workplace readiness; career preparation and instruction in both academic and technical skills.	► Career planning ► Career preparation ► Selection of a career pathway ► Higher performance levels ► Integration of academic and vocational education ► Evaluation ► Secondary/ postsecondary articulation

Source: School-to-Work Opportunities Act of 1994. P.L. 103-239, May 4, 1994; and AVA Guide to the School-to-Work Opportunities Act, 1994.

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► School-to-Work Sub-Component #2: Connecting Activities	► Iowa's Tech Prep programs will develop and implement "connecting activities" which link school-based and work-based learning.	► Bring students and employers together ► Establish liaisons between education and work ► Technical assistance to schools, students and employers ► Assistance to integrate classroom learning with worksite learning ► Encourage participation of employers ► Job placement, continuing education or further education ► Post program participant follow-up and analysis ► Linkages with youth development programs and industry

Source: School-to-Work Opportunities Act of 1994. P.L. 103-239, May 4, 1994; and AVA Guide to the School-to-Work Opportunities Act, 1994.

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► School-to-Work Sub-Component #3: Work-Based Learning	► Iowa's Tech Prep programs will provide students with opportunities for job training and other employment experiences related to a chosen career.	► Work experience (paid and non-paid) ► Job training/Job shadowing ► Workplace mentoring ► Instruction in workplace readiness competencies ► Instruction in all aspects of an industry ► Integration of classroom learning and worksite learning

Source: School-to-Work Opportunities Act of 1994. P.L. 103-239, May 4, 1994; and AVA Guide to the School-to-Work Opportunities Act, 1994.

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: Educational programs are not adequately articulated in design and implementation among all educational entities.	► Iowa's Tech Prep programs will be characterized by a planned sequence of learning experiences, appropriately articulated across the delivery system.	► Drawing Boards* ▪ Articulation agreements between LEAs, community colleges, regents' institutions and other postsecondary institutions ▪ Postsecondary Enrollment Options Act (281-22 Iowa Administrative Code) ▪ Articulation with apprenticeship programs ► Joint curriculum design ► DACUMS (***D***evelop ***A*** ***CU***rriculu***M***)**

*Hull, D. & Parnell, D. (1991). *Tech prep associate degree: A win/win experience*. Waco, Texas: Center for Occupational Research and Development. (pp. 344-363)

**Norton, R. E. (1985). Dacum handbook. The National Center for Research in Vocational Education; The Ohio State University: Columbus, Ohio.

Iowa's Tech Prep Model

Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation

Issue	Model Component
► Issue: Traditional vocational programs have been criticized for producing graduates too narrowly trained and lacking foundation and adaptive skills for a changing workplace and society.	► Iowa's Tech Prep programs will be characterized by graduates who have foundation and adaptive skills for a changing workplace and society. (Continued on next page)

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
	Students will be required to complete a challenging and multi-year program of study that prepares them for life-long learning.	► Hull/Parnell Tech Prep curriculum design:* ▪ Basic core ▪ Technical core ▪ Specialty courses ► Applied Academics ► Articulation ► Drawing Boards** ► Increased expectations/ achievements for students documented through evaluation

*Hull, D. & Parnell, D. (1991). *Tech prep associate degree: A win/win experience.* Waco, Texas: Center for Occupational Research and Development. (pp. 31-62)

**Hull, D. & Parnell, D. (1991). *Tech prep associate degree: A win/win experience.* Waco, Texas: Center for Occupational Research and Development. (pp. 344-363)

Iowa's Tech Prep Model

Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation

Issue

- Issue: Historically, vocational and academic education have not been adequately integrated in course/program design.

Model Component

- Iowa's Tech Prep programs will be characterized by integrated technical and academic curricula, providing all students access to higher levels of academic and technical opportunities.

*Grub, N. W. & et. al. (1991). *The cunning hand, the cultured mind: Models for integrating vocational and academic education.* Berkeley, California: National Center for Research in Vocational Education.

- Integration Models:
  - Academic content into vocational programs
  - Team Teaching
  - Vocational content into academic programs
  - Curricular alignment
  - Senior projects
  - The Academy
  - Occupational clusters--career paths

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: Our educational system limits options by tracking a majority of students into Baccalaureate Prep programs.	► Iowa's Tech Prep programs will provide students with more educational and career options.	► Options to the general track for the "Middle Majority"* ► Applied course work ► Restructured school models with multiple options

*Parnell, D. (1985). *The neglected majority*. Washington, DC: The Community College Press.

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: The design of educational programs should involve business/industry/ labor.	► Iowa's Tech Prep programs will be characterized by input and involvement of business/industry/labor in the design, implementation and evaluation of Tech Prep programs.	► Business/industry/labor representation on planning committees and curriculum modification committees ► Participation in DACUMS (***D***evelop ***A*** ***C***urricul***UM***)* ► Business/industry/labor mentorships ► Education/business/ industry/labor partnerships

*Norton, R. E. (1985). Dacum handbook. The National Center for Research in Vocational Education; The Ohio State University: Columbus, Ohio.

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: There is a common misperception that learning can only take place in educational institutions.	► To provide flexible design alternatives, Iowa's Tech Prep programs will encourage and expand worksite-based learning.	► Apprenticeships ► Co-op programs ► Business/industry/labor mentorships ► Job shadowing ► On-the-Job training ► Clinical experiences/practicums ► Secondary faculty internships/ ► Postsecondary faculty internships ► Education/business/ industry/labor partnerships ► Flexible school calendars/schedules

Iowa's Tech Prep Model

Recommended Patterns of Evidence for Site-based Program Design, Implementation, and Evaluation

Issue	Model Component
► Issue: Educational programs should prepare students for success on the job and in life.	► Iowa's Tech Prep programs will be designed to give all students a rigorous foundation in math, science, technology communications, social science, and fine arts, (Continued on next page)

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
	providing students an opportunity to be successful both on the job and in life.	► Representation of liberal arts faculty on regional board & local task force ► Inclusion of math, science, communications, social science & fine arts on all "drawing boards" ► Applied Academics ► Inclusion of leadership skills in program content

Iowa's Tech Prep Model

Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation

Issue

- Issue: Research indicates that the "middle majority" of students learn better with an applied approach to teaching and learning, yet this is not currently the predominant mode of instruction.*

*Bottoms, G. (1991). *High schools that work.* Atlanta, Georgia: Southern Regional Education Board.

Model Component

- Iowa's Tech Prep programs will be characterized by teaching which emphasizes applied and contextual learning.

- Applied Math
- Applied Communications
- Applied Physics
- Applied Biology/Chemistry
- Workplace Readiness
- Provisions for the efficient & convenient dissemination of applied curriculum material

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: The workforce requires increasing levels of academic and technical competence.	► Iowa's Tech Prep programs will be characterized by graduates demonstrating high levels of technical and academic competence.	► Student outcomes: i.e., math, science, social science, fine arts, communication skills, technical skills, higher order thinking and problem-solving skills ► Assessment ▪ Authentic assessment, portfolios, capstone projects, value added model, pre/post tests, senior projects, paper and pencil

Iowa's Tech Prep Model

Issue

- Issue: Successful educational initiatives require continuous and extensive staff development opportunities.

Model Component

- Iowa's Tech Prep programs will be characterized by continuous comprehensive staff development programs for support staff, faculty, administrators and counselors.

Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation

- Staff development on the need for change
  - Future workforce demographics
  - Economic competitiveness
  - Workforce needs
  - Workforce diversity
  - Continuous Quality Improvement
  - Work-based opportunities
- Use cadre of Tech Prep facilitators*
- Continued participation in statewide Tech Prep conferences
- Participation in regional Tech Prep conferences
- Staff development for Tech Prep design & implementation:
  - Applied Academics
  - Technical Core
  - Technical Specialty
  - Teaching Methodologies
- Staff development designed for administrators & counselors
- Faculty retraining opportunities in business/industry/labor/health/ agriculture

* The cadre of Tech Prep facilitators will consist of a team made up of LEA, AEA, and postsecondary personnel from each merged area.

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: Students, parents, teachers, administrators and the community at large need information about career opportunities, possible earnings by job classification, and placement rates by occupational area.	► Iowa's Tech Prep programs will be characterized by comprehensive career education and development programs designed for students, parents, faculty, counselors, administrators and the community at large.	► Comprehensive career education program with job opportunities and associated earnings & placement rates ► Participation in regional Tech-Prep conferences ► Shared career information resources (i.e., Regional Hub) ► Career education programs: ▪ Elementary ▪ Middle school ▪ High school ▪ Postsecondary ▪ Community ► Transitional support services for students, educators, and employers

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: America's workforce has evolved into a very diverse population. Iowa's educational system must respond to the needs of a diverse workforce.	► Iowa's Tech Prep programs will actively involve constituents of diverse backgrounds in the design, implementation/ participation and evaluation of Tech Prep programs.	► Constituents with diverse backgrounds represented on regional Tech Prep planning boards and local task forces ► Identified and utilized plan to address gender equity issues ► Identified and utilized plan to: ▪ recruit and retain students with diverse backgrounds ▪ recruit faculty with diverse backgrounds ► Retain students with diverse backgrounds ► Support services for students with diverse backgrounds

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
▸ Issue: Educational systems must respond to the needs of students with various learning, economic, and physical abilities.	▸ Iowa's Tech Prep programs will afford special population students, through the use of supplementary services, every opportunity that is afforded to all other students.	▸ Supplementary Services: ▪ i.e., Comprehensive career education services, curriculum modification, equipment modification, classroom modification, support personnel and instructional aids and devices ▸ Preparatory Services: ▪ i.e., outreach to potential vocational education students, career and personal counseling, vocational assessment and testing ▸ Representation on regional Tech Prep planning board ▸ Representation on local task force ▸ Involvement of health & human services and advocacy organizations

Final Regulation: 34 C.F. R. 403.111(c)(3)
Perkins Act: 235(a) (b) (c)

56

57

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: Successful educational programs need the support and commitment of top-level administrators and practitioners.	► Iowa's Tech Prep programs will be characterized by support and commitment from top-level administrators, governing boards, faculty, and counselors.	► Team attendance at major conferences, workshops, and meetings ► Commitment of resources: ▪ Time ▪ Personnel ▪ Financial ► Comprehensive staff development ► Local board approval for Tech Prep ► Business commitment ► Regional planning board approval for Tech Prep

58

59

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: Successful educational initiatives require planned and focused marketing programs.	► The Iowa Tech Prep model will reflect a long-term view of developing and marketing Tech Prep. The long-term goals for marketing Tech Prep should be to place Tech Prep on the same prestigious level as Baccalaureate Prep.	► Workshops for targeted audiences: ▪ i.e., parents, students, staff administrators, and business/industry/ labor ► Local community awareness campaigns ► Feedback of formative & summative evaluation ► Promotional media: ▪ i.e., success stories, newsletters, news ads, video tapes, and brochures

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: Different areas of the state have varying strengths and capacities to implement Tech Prep programs.	► Iowa's Tech Prep Model respects area adaptation of the umbrella model which builds on the strengths and capacities of the area, while adhering to the principles of the approved generic model.	► Identify and analyze area strengths and weaknesses ► Establish goals and plans to respond to identified strengths and weaknesses. ► Utilize "Continuous Quality Improvement" strategies to maximize area strengths and minimize area weaknesses ► Monitor adherence to the principles of the approved generic model

62

63

Iowa's Tech Prep Model

Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation

Issue

- Issue: Varying definitions of terms associated with Tech Prep and School-to-Work program designs often create confusion among Tech Prep planners, faculty, and staff.

Model Component

- To facilitate articulation and communication, Iowa's Tech Prep programs will be characterized by a common vocabulary.

- Statewide glossary of terms for Tech Prep and School-to-Work
- Regional plan developed to disseminate glossary
- Glossary used in regional implementation

Iowa's Tech Prep Model

Issue	Model Component	Recommended "Patterns of Evidence" for Site-based Program Design, Implementation, and Evaluation
► Issue: The educational system needs to be accountable for student outcomes and for creating a process for continuous quality improvement.	► Iowa's Tech Prep programs will be characterized by formative and summative evaluation procedures. (See definitions for formative and summative evaluations on next page.)	► Formative Evaluation: ▪ Continuous Quality Improvement ► Summative Evaluation: ▪ Outcomes – School-based – Student-based – Work-based – Connecting Activities ▪ Indicators – School-based – Student-based – Work-based – Connecting Activities

Evaluation Definitions

- **Formative evaluation:** A process for monitoring program implementation and management to ascertain the quality of (a) resources; (b) procedures for planning and delivering Tech Prep programs; (c) instruction; (d) recruitment; and (e) organizational structure and operating procedures for the purpose of mid-course corrections.

- **Summative evaluation:** Procedures to determine the effectiveness of Tech-Prep outputs as measured against clearly stated goals. Usually summative evaluations occur at the end of the initiative to determine the degree to which performance standards are met, including school-based, student-based, connecting activities, and work-based outcomes.

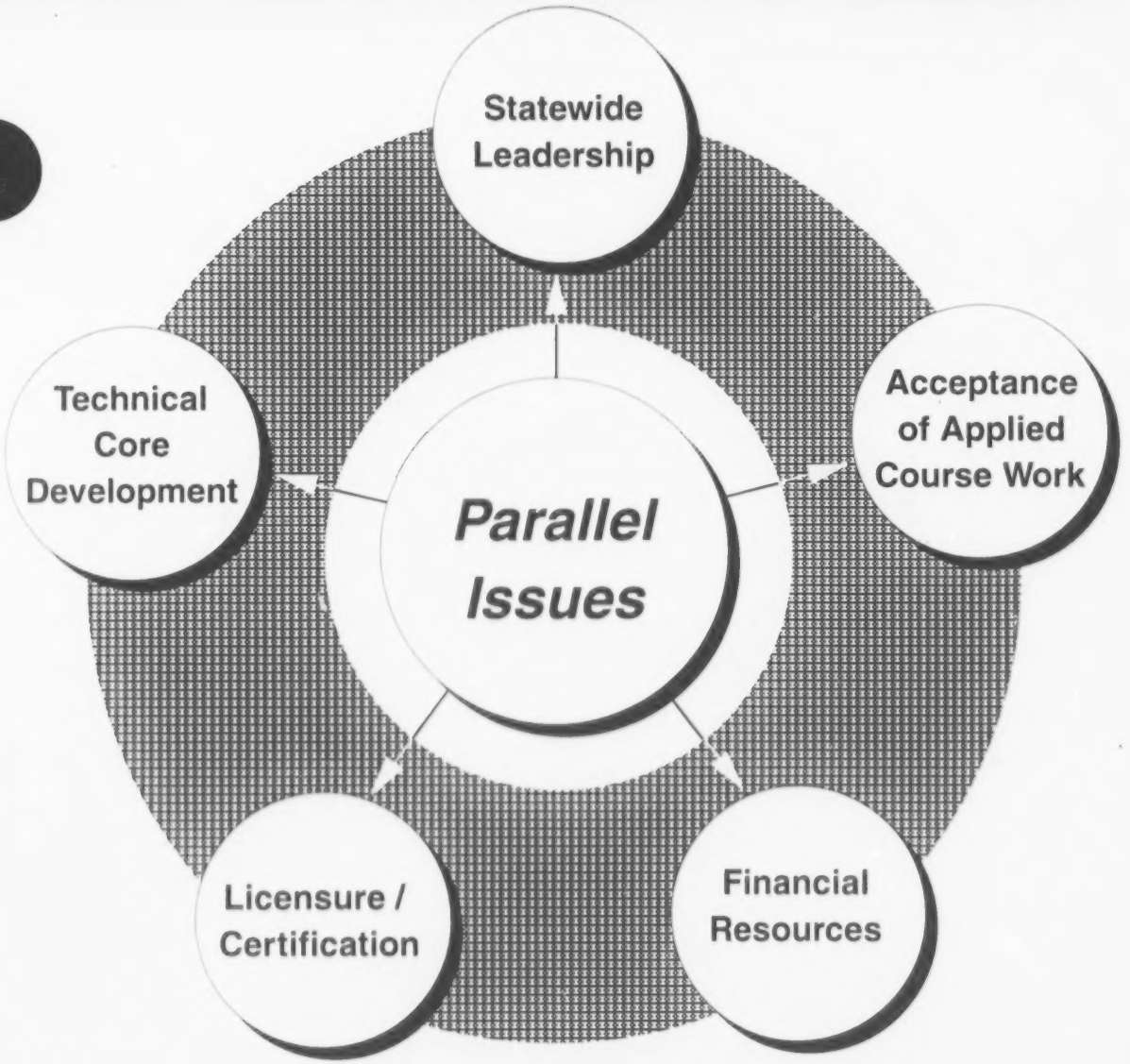
Parallel Issues Impacting The Development of Tech Prep

A Partnership for Tech Prep

Issues / Recommendations / Resolution Strategies

Iowa's Tech Prep Model Components

Parallel Issues



Parallel Issue Page Numbers

Financial Resources.....26
Acceptance of Applied Course Work.....27
Licensure / Certification..29
Statewide Leadership.....30
Technical Core Development.....31

Note: Location of component does not depict priority or importance.

Iowa's Tech Prep Model

Issue	Recommendation	Strategies for Issue Resolution
► Issue: Limited financial resources are available to develop, support and maintain Tech Prep programs in Iowa.	► Successful Tech Prep programs will require federal, state and local policies to provide adequate resources for the long-term development and implementation of Tech Prep.	► Continued support of the federal, state and local partnership for Tech Prep ► Start up and on-going financing by the State of Iowa ► LEA / AEA / postsecondary institutions / business/ industry/labor partnerships to leverage resources ► Effective utilization of all partners to influence federal, state and local policies ► Internal reallocation of resources ► Interagency cooperation ► Dissemination of other states' policies on Tech Prep (e.g., Indiana and Wisconsin)

74

75

Iowa's Tech Prep Model

Issue	Recommendation	Strategies for Issue Resolution
► Issue: High school transcript analysis conducted by many four-year institutions does not recognize applied course work for meeting entrance requirements.	► A key component of Tech Prep design is the inclusion of applied academic course work as part of the basic core. Research concludes that applied course work provides (Continued on next page)	

Iowa's Tech Prep Model

Issue	Recommendation	Strategies for Issue Resolution
	students knowledge and skills equal to traditional academics.* Therefore, applied course work should be accepted as satisfying both high school graduation and college entrance requirements.	► Establish a summit meeting with Regents institutions to open dialogue on applied course work/entrance requirements ▪ Establish committee to identify/study issues relating to acceptance of applied course work (composed of all Tech Prep partners) ► Community awareness campaigns ► Collection and dissemination of nationwide data on utilization of applied academics

*Bottoms, G. (1991). *High schools that work.* Atlanta, Georgia: Southern Regional Education Board.

Acceptance of Applied Course Work 28

Iowa's Tech Prep Model

Issue	Recommendation	Strategies for Issue Resolution
► Issue: Current licensure/certification requirements do not allow for the optimum use of qualified faculty and other community members in the delivery of a contemporary curriculum.	► To allow greater flexibility in the delivery of a contemporary curriculum, licensure/certification standards should be changed in order to best utilize available human resources.	► Study and analyze other states' licensure/certification policies ► Continued utilization of Board of Education Examiners review of licensure/certification standards

Iowa's Tech Prep Model

Issue	Recommendation	Strategies for Issue Resolution
► Issue: Further development of the Tech Prep initiative, as well as ongoing maintenance beyond the current project's scope, will require continued leadership on a statewide basis.	► Tech Prep partners should encourage the allocation of resources to support statewide Tech Prep leadership.	► Reserve portion of federal Tech Prep funding for continued statewide leadership

Iowa's Tech Prep Model

Issue	Recommendation	Strategies for Issue Resolution
► The Tech Prep "Technical Core" is not developed in scope and quality as the "Applied Academic Core." This is a nationwide issue, requiring a national response to the issue.	► Tech Prep partners should encourage the federal government to mobilize resources to develop a quality "Technical Core."	► Coordinated efforts with Iowa's Congressional delegation, American Vocational Association (AVA), American Association of Community Colleges (AACC), to obtain resources to develop and disseminate a quality "Technical Core." ► Inter-state compacts, national centers for vocational / technical / academic education, and leading institutions and organizations should be mobilized to develop and disseminate the "Technical Core."

Seven Tech Prep Program Elements

- **Source: AVA Guide to Federal Funding for Tech Prep**
  - *The following information represents a legal analysis of the Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 (P.L. 101-392) by the American Vocational Association. This information is based on the final regulations released by the U.S. Department of Education. Specific legal questions concerning Tech Prep should be directed to the U.S. Department of Education's Office of Vocational and Adult Education.*

Articulation:

- The consortium members must sign an articulation agreement. This agreement commits them to a program with a non-duplicative sequence of classes and other experiences providing progressive achievement leading to competencies in a Tech Prep program.
- **Corresponding Iowa Tech Prep Model Components:**
  - School-to-work Transition
  - Collaboration
  - Articulation

Curriculum Development:

- The application must show that some money will be used to develop Tech Prep curricula. The proposed budget must have a line item for curriculum development.
- **Corresponding Iowa Tech Prep Model Components:**
  - Business/Industry/Labor Involvement
  - Worksite-based Learning
  - Life Skills / Job Skills
  - Applied & Contextual Learning

Appropriate Curriculum Design:

- At the secondary level, the Tech Prep program must contain two years of classes during the 11th and 12th grades. It cannot start in the ninth or 10th grades. The program also must contain two years of higher education or an apprenticeship program lasting at least two years after high school. In addition, the program must have a common core of required courses in mathematics, science, communications and technologies that leads to an associate degree or a certificate in a specific career field. The program must require courses in all four area. Applied academic courses are eligible for funding if they are an integral part of the Tech Prep program. Any applied academic course must specifically relate to the occupational skills being taught in the program.
- **Corresponding Iowa Tech Prep Model Components:**
  - Life-long Learning / Adaptive Skills
  - Integration of Academic and Technical Curricula
  - Increased Career & Educational Options

Seven Tech Prep Program Elements

▸ In-Service Teacher Training:

- The plan must show that some money will be used for in-service teacher training. The training should instruct teachers in effectively using the Tech Prep curriculum. The training should be provided on a combined basis to teachers from all consortium participants during weekends, evenings or the summer. The budget must contain a line item for in-service training.
- **Corresponding Iowa Tech Prep Model Component:**
  - Staff Development

▸ Counselor Training:

- Training for counselors also must be included in the plan. The training should teach counselors how to recruit students for Tech Prep, how to help students complete the program and how to help place students in jobs.
- **Corresponding Iowa Tech Prep Model Component:**
  - Career Education

▸ Preparatory Services:

- The consortium must provide preparatory services to help all populations participate in Tech Prep. These services, which should be aimed at students who are not enrolled in vocational education programs, can include outreach to potential vocational education students, career and personal counseling and vocational assessment and testing, among other activities. Since preparatory services are provided to students not yet enrolled in Tech Prep, this exception permits the delivery of services before the 11th grade.
- **Corresponding Iowa Tech Prep Model Component:**
  - Special Populations / Preparatory Services

▸ Equal Access for Special Populations

- The consortium must provide equal access to all Tech Prep programs to members of special populations. To ensure equal access, consortia may be required to provide services needed by the special populations. "Special populations" are defined as individuals with handicaps or limited English proficiencies, educationally and economically disadvantaged people (including foster children), people who participate in programs designed to eliminate sex bias and individuals in correctional institutions. Providing "equal access" simply means giving special population students the same opportunity to enter the Tech Prep program as that offered other students. The consortium is not required to spend non-federal funds to provide equal access. In the final regulations, the Secretary determined that the Section 118 access requirements that govern the basic grant do not apply to the Title III Tech Prep program. Therefore, the consortium does not have to spend any money, either federal or non-federal, to ensure that members of special populations succeed in Tech Prep programs, as is the case when using basic grant money for Tech Prep programs.
- **Corresponding Iowa Tech Prep Model Component:**
  - Special Populations / Preparatory Services

Tech Prep Drawing Board

Career _____

Subject	High School				Postsecondary			
	Freshman	Sophomore	Junior	Senior	Freshman A	Freshman B	Sophomore A	Sophomore B
Math								
English								
Science								
Humanities								
Other								
Other								
Technical Core								
Technical Core								
Technical Specialty								
Technical Specialty								